Serial No.: 09/171,960

Amendment dated November 21, 2003

Response to Office Action dated May 23, 2003

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application. By the present amendment, claims 1, 2, 5, 8, 9 and 13-15 are amended.

Listing of Claims:

Claim 1. (Currently Amended) A method of operating a node in a communications network, which said node is including signalling link hardware for implementing low level processing in use connected by a signalling link to a signal sources source external to the communications network via respectively corresponding links, the method comprising:

- a) receiving from respective signal sources signals which include a control field, which control field takes one of a plurality of possible values, and the subsequent handling of the said signal by the network being controlled according to the value of the control field;
- b) within a lower level of a messaging protocol <u>running on the</u>

 <u>signalling link hardware</u>, and prior to the processing of the signal by higher level

 functions, comparing the value stored in the control field with a set of permissible

 <u>values</u>, said set being <u>overwriting the control field with a value from</u> a restricted

 subset of the plurality of possible values <u>according to a subrouting</u>, and <u>instance of</u>

 <u>which is created for each signalling link handled by the node[[,]] to determine if</u>

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the value is a permissible or impermissible value, and if the value is determined to be impermissible, overwriting the control field with a permissible value; and

c) subsequently processing the signal in the network in dependence upon the said permissible value overwritten in step (b) from the restricted subset of the plurality of possible values.

Claim 2. (*Currently Amended*) A method of operating a communications network comprising:

- a) communicating control signals between nodes of the network via respectively corresponding links which control signals conform to a predetermined signalling protocol;
- b) at one of the said nodes, receiving from a signal source external to the network signals conforming to the said predetermined protocol and including a control field, which control field takes one of a plurality of possible values;
- c) within said lower level of a messaging protocol running on the node, and prior to the processing of the signal by higher level functions running on the node, comparing the value stored in the control field with a set of permissible values, said set being overwriting the control field with a value from a restricted subset of the plurality of possible values according to a subroutine, an instance of which is created for each signalling link handled by the node[[,]] to determine if

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the value is a permissible or impermissible value, and if the value is determined to be impermissible, overwriting the control field with a permissible value; and

d) subsequently processing the signal in the network in dependence upon the said permissible value overwritten in step (c) from the restricted subset of the plurality of possible values.

Claim 3. (*Previously Presented*) A method according to claim 1, in which step (c) is carried out within a data link layer interface, which data link layer interface is arranged to respond to service request from a network layer functions of the node and to issue service requests to the communications network.

Claim 4. (*Previously Presented*) A method according to claim 1, in which the said control field is a routing control field, and the overwriting of the routing control field with a permissible value limits the routing of signals to or from the external sources to only part of the communications network.

Claim 5. (Currently Amended) A method according to claim 4, in which the routing of signals to or from the an external source sources is limited to a point-to-point connection between the respective external source and the node.

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Claim 6. (*Previously Presented*) A method according to claim 1, win which the said signals conform to a common channel signalling protocol.

Claim 7. (*Original*) A method according to claim 6, in which the common channel signalling protocol is ITU-T Signalling System no. 7.

Claim 8. (*Currently Amended*) A node suitable for connection in a communications network, said node including signalling link hardware for implementing low level processing, and comprising:

- a) a network interface for connection to the communications network;
- b) a signal interface for connection to a signal source external to the communications network via respectively corresponding links;
- the signalling link hardware, within a lower level of a messaging protocol, the value stored in the control field with a set of permissible values, said set being for overwriting a control field with a value from a restricted subset of the plurality of possible values according to a subourtine, an instance of which is created for each signalling link handled by the node[[,]] to determine if the value is a permissible or impermissible value, and if the value is determined to be impermissible, overwriting the control field with a permissible value; and

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d) signal processing means for processing the said signal in dependence upon the permissible overwritten value adopted by the control field.

Claim 9. (Currently Amended) A node according to claim 8, in which the said means connected to the signal interface for comparing is located within a data link layer interface, which data link layer interface is arranged to respond to service requests from network layer functions of the node and to issue service requests to the communications network.

Claim 10. (*Previously Presented*) A node according to claim 8, in which the signal processing means is arranged to route the signal in dependence upon the value of the said control field.

Claim 11. (*Previously Presented*) A communications network including a node according to claim 8.

Claim 12. (*Original*) A communications network according to claim 11 including a common channel signalling network carrying signals conforming to a common channel signalling protocol and in which both the said network interface

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and the said signal interface are arranged to communicate signals conforming to the said common channel signalling protocol.

Claim 13. (Currently Amended) A method of operating a node in a communications network, which said node is including signalling link hardware for implementing low level processing in use connected by a signalling link to a signal source sources external to the communications network via respectively corresponding links, the method comprising:

- a) receiving from one of the said signal sources signals which include a control field, which control field takes one of a plurality of possible values, and the subsequent handling of the said signal by the network being controlled according to the value of the control field;
- b) within a lower level of a messaging protocol running on the signalling link hardware of the node, and prior to the processing of the signal by higher level functions running on the node, comparing the value stored in the control field with a set of permissible values, which set includes overwriting the control field with a value from a restricted subset of the plurality of possible values according to a subroutine, and instance of which is created for each signalling link handled by the node[[,]] to determine if the value is a permissible

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or an impermissible value, and in the event that the value is determined to be an impermissible value, overwriting the control field with a permissible value; and

c) subsequently processing the signal in the network in dependence upon the permissible overwritten value stored in the control field.

Claim 14. (*Previously Presented*) A method of operating a communications network comprising:

- a) communicating control signals between nodes of the network via respectively corresponding links, which control signals conform to a predetermined signalling protocol;
- b) at one of the said nodes, receiving at a low level process from a signal source external to the network signals conforming to the said predetermined protocol and including a control field, which control field takes one of a plurality of possible values;
- c) within a lower level of a messaging protocol running on the node, and prior to the processing of the signal by higher level functions running on the node, comparing the value stored in the control field with a set of permissible values, which set includes overwriting the control field with a value from a restricted subset of the plurality of possible values according to a subroutine created for each link handled by the node[[,]] to determine if the value is a

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permissible or an impermissible value, and in the event that the value is

determined to be an impermissible value, overwriting the control field with a

permissible value; and

d) subsequently processing the signal in the network in dependence upon the permissible value stored in the control field.

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Claim 15. (*Previously Presented*) A method of operating a node in a communications network, which node is in use connected to a signal source external to the communications network via respectively corresponding links, the node including a data link layer interface arranged to respond to service requests from network layer functions of the node and to issue service requests to the communications network, the method comprising:

- a) receiving from the said signal source signals which include a control field, which control field takes one of a plurality of possible values, and the subsequent handling of the said signal by the network being controlled according to the value of the control field;
- b) within the data link layer interface, and prior to the processing of the signal by higher level functions running on the node, comparing the value stored in the control field with a set of permissible values, which set includes overwriting the control field with a value from a restricted subset of the plurality of possible

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values according to a subroutine created for each link handled by the node[[,]] to determine if the value is a permissible or an impermissible value and, in the event that the value is determined to be an impermissible value, overwriting the control field with a permissible value; and

c) subsequently processing the signal in the network in dependence upon the permissible overwritten value taken by of the control field.

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Claim 16. (*Previously Presented*) A method according to claim 1 comprising writing control field data received on each of a plurality of signalling links into respective signalling link data buffers, and, when required, overwriting impermissible values taken by the control fields in the respective data buffers with a corresponding permissible value.

Claim 17. (*Previously Presented*) A node arranged to operate in accordance with the method of claim 15.

Claims 18-23. (Canceled).